



MARSHALL STAR

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July 6, 2006

Shuttle Discovery launch provides spectacular fireworks

The Space Shuttle Discovery is on its way to the International Space Station after lifting off at 1:37:55 p.m. CDT Tuesday, July 4, from NASA's Kennedy Space Center, Fla. This was the first-ever space shuttle launch on Independence Day.

"We're absolutely thrilled to be safely back in space again and are looking forward to evaluating shuttle system ascent performance as soon as possible," said NASA Administrator Michael Griffin.

The day after launch, Wednesday, July 5, Commander Steve Lindsey, Pilot Mark Kelly and Mission Specialists Mike Fossum, Lisa Nowak, Stephanie Wilson, Piers Sellers



Space Shuttle Discovery successfully launches from Kennedy Space Center.

and Thomas Reiter got their wake-up call at 4:08 a.m. CDT, allowing them an extra 30 minutes of sleep after their first day in space ran

minutes for each wing and the nose cap. The rest of that time is

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NASA names new rockets, saluting the future, honoring the past

NASA Headquarters news release

NASA announced June 30 the names of the next generation of launch vehicles that will return humans to the moon and later take them to Mars and other destinations. The crew launch vehicle will be called Ares I, and the cargo launch vehicle will be known as Ares V.

"It's appropriate that we named these vehicles Ares, which is a pseudonym for Mars," said Scott Horowitz, associate administrator

for NASA's Exploration Systems Mission Directorate, Washington. "We honor the past with the number designations and salute the future with a name that resonates with NASA's exploration mission."

The "I" and "V" designations pay homage to the Apollo program's Saturn I and Saturn V rockets, the first large U.S. space vehicles conceived and developed specifically for human spaceflight.

The Crew Exploration Vehicle, which will succeed the space shuttle as NASA's spacecraft for human space exploration, will be named at a later date. This vehicle will be carried into space by Ares I, which uses a single five-segment solid rocket booster, a derivative of the space shuttle's solid rocket booster, for the first stage. A liquid oxygen/liquid hydrogen J-2X engine derived from the J-2 engine used on Apollo's second stage will power the crew launch

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Launch

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devoted to very careful movement of the Canadarm and the OBSS.

Nowak and Wilson will return the OBSS to its berth on the starboard sill of Discovery's cargo bay. Then they and Fossum will use cameras on the shuttle arm to photograph the outside of Discovery's cabin.

Wilson will take digital hand-held camera photos of the orbital maneuvering system pods at the base of the shuttle's vertical tail fin.

Photos and sensor readings from the shuttle, as well as photos of launch and ascent from more than 100 ground-based and airborne cameras and radar and instrument data, will be reviewed by experts on the ground.

The data, photos by the station crew and information from subsequent arm surveys at the station and after undocking will be used to determine if Discovery sustained damage during launch and ascent or in space, to ensure that it is safe for the shuttle to re-enter the atmosphere to land.

Wilson and Reiter will get items on the middeck ready for transfer to the station. Spacewalkers Fossum and Sellers, helped by Kelly, the intravehicular officer who coached the spacewalkers, will check out spacesuits.

Nowak and Sellers will extend the shuttle docking ring, which will help secure Discovery to the station. Kelly and Sellers will check out and prepare docking tools, including laptop computers.

The space station crew, Commander Pavel Vinogradov and NASA Science Officer Jeff Williams, will continue to prepare the orbiting laboratory for Discovery's arrival, Thursday, June 6. They will ready the digital cameras with 400mm and 800mm lenses they will use during Discovery's approach to take high-resolution photos of the shuttle's heat shield.

They also will pressurize the Pressurized Mating Adapter 2 at the end of the U.S. laboratory Destiny, where Discovery is scheduled to dock.



NASA/Sandy Joseph, Robert Murray



NASA/Kim Shifflet

In the top photo, Space Shuttle Discovery kicks off the Fourth of July fireworks with its own fiery display as it rockets into the blue sky on mission STS-121. In the left photo, waving flags for the Fourth of July, the STS-121 crew heads for the Astrovan and the ride to Launch Pad 39B for a third launch attempt. For more information on the shuttle mission, visit <http://www.nasa.gov/shuttle>.

The face of mission success is: *Dave Scott, a payload communications manager for the Mission Operations Laboratory*

As a payload communications manager at Marshall Center's Mission Operations Laboratory, Dave Scott — better known as "Scotty" — serves as a bridge between the International Space Station astronauts and the ground support team at the Payload Operations Center. From formal operations communication to a bit of cheerleading, he converses directly with the International Space Station crew.

What are the key responsibilities of your job?

The key responsibility of the PAYCOM position is to provide clear, concise operational communications, whether spoken, written or in pictures, to the space station crew. There's quite a bit more to it than talking on the radio. If a payload expert provides a message destined for space station, I make sure it fits both the short- and long-term contexts of a crew perspective.

I've found that diplomacy in this job is essential because I'm dealing with folks who are orbiting 240 miles above Earth with only one or two other people for six months straight. Even though the crew can talk frequently to family and friends, they're still living in a space the size of a modest three-bedroom house. Taking a spontaneous walk outside to relieve stress is not an option. Keeping things light and as simple as possible helps us work better.

The experiments on the space station are also important. Many people have gone through a lengthy process — often involving many years and many dollars — to have these experiments on board. How a request or requirement is handled is every bit as important as what actually happens to it.

You also don't accomplish this job alone. Having a great support team is essential. Real-time flight control is exciting, and I've been privileged to be in this position. When what I do comes across well, it's because the other real-time team players have provided solid

information and feedback. The techies downstairs keep the support systems running, and the mission prep team has assignments lined up to make mission execution feasible.

In addition to working console shifts, I also travel to Johnson Space Center to facilitate payload crew training, which provides opportunities to get to know crew members and mission control flight controllers professionally — and sometimes socially — before a mission. I'm also the techno-geek of the PAYCOM team, finding the right kinds of tools to boost our on-console efficiency, responding to Huntsville Operations Support Center technology initiatives, and the like.



Dave Scott

Emmett Given/MSFC

What is your education and professional background?

I grew up in Santa Monica, Calif., during the Apollo era. Like a vast number of kids in that era, I wanted to be an astronaut. In the middle of college I thought seriously, "Why not actually do this?" The shuttle program was gearing up, and

one way to accomplish my goal was to become a fighter pilot. After completing a degree in math and physics from Principia College in Elsah, Ill., and taking time off to travel the United States, I joined the U.S. Navy. I had the honor of being a Naval Flight Officer in F-14s, and spent two years running a flight deck and fueling facility on an amphibious assault ship. Post-Navy, I managed to get myself underemployed for a while. I spent time in San Diego delivering singing telegrams and staffing a customer service hotline at minimum wage. Both experiences taught me communications skills and timing that help tremendously in my job now. It's amazing how allegedly low circumstances can provide things of tremendous value.

I started working at Marshall in 1985 as a contractor, writing software for payload crew training simulators for the Spacelab

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Roy W. Malone Jr. named head of Marshall's Safety and Mission Assurance Directorate

By Bill Hubscher

Roy W. Malone Jr. has been named director of the Safety and Mission Assurance Directorate at the Marshall Center. He assumes responsibility for planning and directing safety, reliability and quality assurance operations for Marshall programs and projects.

Malone has served as the directorate's deputy director since July 2002. During



Roy W. Malone Jr.

this time, he also completed a temporary assignment at the Langley Research Center in Hampton, Va., where, from June 2003 to February

2004, he helped create and implement the NASA Engineering and Safety Center. Chartered in November 2004, the organization serves as an independent technical resource for NASA managers and employees.

Malone was manager of Marshall's Logistics Services Department in the Center Operations Directorate from 1998 to July 2002. He was responsible for planning and directing logistics, technical and

institutional support for Marshall research development, and program management activities.

In 1997, he served as the center's ISO 9000 audit manager and was responsible for implementing, managing and reporting on the Marshall Center's internal quality audit system. Malone started his NASA career in 1994 as a senior technical advisor in the Safety and Mission Assurance Shuttle Integration Office.

Before joining NASA, from 1991 to 1994, Malone was a senior quality engineer with PRC Inc., of Huntsville. PRC Inc. is an engineering and scientific support contractor providing safety, reliability and quality engineering services for the Safety and Mission Assurance Program at Marshall.

Malone also served on active duty with the U.S. Navy from 1980 to 1991, including tours on three U.S. Navy destroyers, one of which included a tour as combat systems officer on the USS Caron during Operation Desert Storm in 1991. He also spent two years at the Pentagon in Washington, where he served on the Joint Chiefs of Staff and in the Office of the Chief of Naval Operations. During his 10 years of service in the Naval Reserve, Malone completed assignments with the Naval Mobile Construction Battalion in Huntsville; the Naval Tactical Training Group Atlantic in Virginia Beach, Va.; and the U.S. Joint Forces Command in Norfolk, Va. He retired from the U.S. Naval Reserve as a commander in September 2001.

During his NASA career, Malone has received numerous honors and awards, including a Space Flight Awareness Leadership Recognition Award in 2001. He received a NASA Certificate of Appreciation in 1999 for his role in Marshall's ISO 9000 registration and a Space Flight Awareness Launch Honoree Award in 1993. He also has received numerous Marshall Center Group Achievement Awards, Special Service Awards and Sustained Superior Performance Awards.

Malone's military awards include a Joint Service Commendation Medal for meritorious achievement in 2002; a Navy Achievement Medal for outstanding professional achievement and leadership in 1996; five Navy Commendation Medals for outstanding achievement from 1983 to 1999, including one medal with the Combat Distinguishing Device for service during Operation Desert Storm; and a Joint Service Achievement Medal for distinguished performance of duties and meritorious achievement in 1987.

He has authored numerous technical papers and magazine articles on leadership.

A native of Virginia Beach, Malone received a bachelor's degree in electrical engineering in 1980 from the Georgia Institute of Technology in Atlanta. He lives in Huntsville with his wife, the former June Spenner of Hoyleton, Ill., and their two children.

The writer, an ASRI employee, supports the Office of Strategic Analysis and Communications.

National Active and Retired Federal Employees Association to meet July 8

The National Active and Retired Federal Employees Association will meet Saturday, July 8, at the Senior Center on Drake Avenue. The program will highlight the activities and services available to association members. Refreshments will be served at 9:30 a.m. and the program will begin at 10 a.m. For more information, call 881-4944 or 882-2406.

Marshall education specialists help improve NASA education program by becoming certified rocketeers

By Bill Hubscher

When Marshall education specialists Julie Clift and Dawn Mercer helped organize and guide this year's NASA Student Launch Initiative, an educational program

encouraging students to design and build their own rockets, the former teachers ended up turning the tables on themselves and became students of rocketry.

The annual Initiative, hosted and sponsored by the Marshall Center, challenges high school students from around the United States not only to design and build a rocket but also to create a scientific payload and test the vehicle. This yearlong process culminated recently in a design review and rocket fair at Marshall and the official rocket launch in Manchester, Tenn.

Caught up in the students' excitement they'd witnessed in previous years, Clift and Mercer, who support Marshall's Academic Affairs Office as employees of AI Signal

Research Inc., decided to take on the same challenges the students faced. "We wanted to understand the basics of what is important when it comes to building a rocket and why, so we conducted our own hands-on lesson," Mercer said. "We wanted to see what these students go through."

They unveiled their surprise to the students, who gathered May 4 in Morris Auditorium for the design review and presentations: a model rocket Clift and Mercer spent weekends building and would launch with the student-built rockets during the launch event.

"We wanted to learn for ourselves what steps student teams had to take to build a rocket," said Clift, a former elementary school teacher. "We couldn't build one as intricate or complex as the students', but we knew we could build a basic one to grasp the program challenges we ask students to face. We wired our rocket with an altimeter to measure how high the rocket reached, and

attached our payload. Then we painted it pink."

Mercer and Clift used an I161 model engine in their 5-foot-4-inch project. With the launch, the pair became officially certified by the National Association of Rocketry, the world's oldest and largest sport rocketry organization. Certification is granted when applicants conduct a safe and successful flight with two members of the association present as witnesses.

"Along with the 11 student rocketry teams, we had six members of the Huntsville Area Rocketry Association witness the launch," said Mercer, who taught high school science in Marietta, Ga., and Huntsville for eight years before joining Marshall in 2000. "Now we just need to send off the paperwork. I'm excited to become an

official certified rocketeer."

Jim Ellis, manager of Marshall's Academic Affairs Office, is impressed with the work Clift and Mercer do.

"Dawn and Julie took their experience with the Student Launch Initiative that extra step, so they could learn from the event and get more directly involved with the students," Ellis said. "Their initiative and their continued effort to improve as leaders of the Student Launch Initiative will make the program stronger. I am very proud of them. They have a special ability to inspire the participants to want to pursue science and math educations. I have no doubt that some of the students participating in the launch initiative will be designing,



Marshall education specialists Julie Clift, left, and Dawn Mercer show off the rocket they built and its passenger, both named "Gumby," during the design review portion of the Student Launch Initiative in Morris Auditorium.

building and launching future NASA systems."

Their pink rocket was called "The Gumby" because it carried the small, green, bendable toy made famous in cartoons in the late 1950s. "The Gumby" rocket and its green passenger didn't quite reach the one-mile altitude goal set for the students, but it did soar to 2,725 feet, a little over half a mile, before falling back to Earth.

"Which was fine for us," Clift said. "We just wanted to make sure it could get off the ground and have a good flight."

Mercer agreed. "It wasn't just about putting the rocket together. As it flew, the excitement for us came from the anticipation of the parachute deployment. The chute proved we had a successful flight and could recover the rocket and payload. Plus, the kids got a big kick out of seeing us get involved and get just as excited as they do."

The writer, an ASRI employee, supports the Office of Strategic Analysis and Communications.

Spark igniter tests completed at Marshall

By Sheri Bechtel

Engineers at the Marshall Center have completed another foundational step in the development of the Ares I crew launch vehicle — the space shuttle successor that will be the flagship of America's space exploration mission in coming decades.

Marshall Center engineers recently tested a critical device called an "augmented spark igniter," an engine component required for in-flight ignition of liquid hydrogen and liquid oxygen propellants that mix and burn in engine combustion chambers. Tests were conducted at the East Test Area by members of Marshall's Exploration Launch Projects Office, Engineering Directorate, and Safety and Mission Assurance Directorate.

The test apparatus and a similarly designed augmented spark igniter will be used in development of the J-2X upper stage engine, an updated version of the powerful engine used to power the Saturn V

rocket upper stages during the Apollo moon program. The J-2X is planned for use in both the Ares I upper stage and the Ares V cargo launch vehicle's Earth Departure Stage. The dual-use J-2X engine is an example of common hardware designed to simplify ground processing and reduce recurring operation costs.

During the igniter tests, engineers integrated the igniter assembly — spark plugs, propellant injectors and tube-like ignition torch — and fired it into a vacuum chamber. This simulated the conditions the Ares I upper stage will experience when activated in low-Earth orbit. Future tests will chill propellants to minus 260 degrees Fahrenheit prior to injection to simulate conditions between Earth and the moon, where the J-2X will be used to power the Earth Departure Stage.

Test data is under review, according to Warren Peters, lead subsystem engineer

at Marshall. Thus far, analysis has shown the test igniter operated properly under its ground-start design conditions. Initial assumptions concerning its operation at simulated altitude or low back pressure conditions have also been verified.

"We're mapping out conditions for proper function of the component, and addressing all possible circumstances in which it might fail to do so," Peters said. "When we combine the test data with computer models now in development, we expect to have a comprehensive understanding of the igniter's requirements for safe and reliable operation."

"That will bring us one step closer to delivering the engine system that will carry our explorers back to the moon," Peters added.

The writer, an ASRI employee, supports the Office of Strategic Analysis and Communications.

Obituaries

Ronald Curtis Scott, 73, of Madison died May 21. He retired from the Marshall Center in 1988 as an aerospace engineer in flight systems. He is survived by his wife, Alice Scott; one son, Chad Alan Scott of Dothan; and one brother, Norman D. Scott of Wetumpka.

Leslie Frank Adams, 69, of Huntsville died May 29. He retired from the Marshall Center in 1983 as an aerospace engineer and supervisor in project management. He is survived by his wife, Penny Adams; one son, Dr. Gregory F. Adams of Decatur; and two daughters, Sharon Adams of Knoxville, Tenn., and Debbie Ratliff of Cullman.

Nicholas Babakitis, 86, of Scottsdale, Ariz., died June 4. He retired from the Marshall Center in 1973 as an aerospace

engineer and nuclear solid state physicist. He is survived by his wife, Lillie Tsimpides Babakitis; one son, George Babakitis of Birmingham; four daughters, Patricia Livi of Paradise Valley, Ariz., Debbie Babakitis of Scottsdale, Ariz., Elaine Denson of Brenham, Texas, and Constantine Babakitis of Phoenix; one brother, James Babakitis of Chicago; and one sister, Mary Babakitis of New York.

Martha Hurn "Tince" Snoddy, 83, of Huntsville died June 11. She retired from the Marshall Center in 1972 as a legal assistant and librarian. She is survived by her husband, Henry M. Snoddy; one son, Charles H. Snoddy of Huntsville; one daughter, Carol S. Byler of Huntsville; and one sister, Muriel H. Barnett of Rogersville.

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vehicle's second stage. The Ares I can lift more than 55,000 pounds to low-Earth orbit.

Ares V, a heavy-lift launch vehicle, will use five RS-68 liquid oxygen/liquid hydrogen engines and two five-segment solid propellant rocket boosters for the first stage. The upper stage will use the same J-2X engine as the Ares I.

The Ares V can lift more than 286,000 pounds to low-Earth orbit and stands approximately 360 feet tall. This versatile system will be used to carry cargo and the components needed to go to the moon and later to Mars into orbit.

NASA's Johnson Space Center, Houston, manages the Constellation Program, and the agency's Marshall Space Flight Center manages the Exploration Launch Projects office for the Exploration Systems Mission Directorate, Washington.

Classified Ads

To submit a classified ad to the Marshall Star, go to Inside Marshall, to "Employee Resources," and click on "Employee Ads — Submit Ad." Ads are limited to 15 words, including contact numbers. No sales pitches. Deadline for the next issue is 4:30 p.m. Thursday.

Miscellaneous

Elliot's Designs king-size headboard, brass and white enamel, \$200. 468-6016

Chevy rims, 14", 4 pieces, center caps and beauty rings, \$200. 586-2994

Household items: washer & dryer; oak claw pedestal table w/chairs; entertainment cabinets; baby items. 880-9025

Radio Flyer all terrain red wagon, all extras, \$100. 353-0370

Two Sea Doos: 1996 GTX; double trailer, covers, \$5,500. 461-9404

Bridgeport Enco milling machine, DRO, \$1,900. 654-7849

Proform 580X treadmill w/power incline. 256-337-6600

Proform 740CS treadmill, 3HP motor, service manual, owners manual, Internet capable, \$300. 205-602-6868

Two plots, Huntsville Memory Gardens, \$2,400; Fostoria punch bowl, \$185; antique knife collector's case, \$40. 256-881-4067

Black luggage set, 24" & 19" wheeled uprights, wheeled duffel, cosmetic bag, tote, \$40. 256-890-0575

Antique piano w/bench, solid wood, \$100; hybrid Daylilies, \$5-\$60. 828-9651

Large computer desk, \$25. 830-5039

Round oak table with leaf. Two captains chairs, four side chairs with pads, \$600. 722-9989

Diamondback Crestview hybrid bicycle w/computer, kangaroo bag, bottle holder, tools, wall rack, 500/mileage, \$150. 971-0571

Twin mattress and frame, \$100; treadmill, \$35. 830-2374

Golf clubs, men's left-handed, woods 1/3/5, irons 3-9, PW, SW, putter, no bag, \$150. 882-3983

Sectional sleeper sofa, \$250; upright piano, \$300; drag racing simulator, \$1,000. 256-682-8650

Fender Blues Jr. guitar amplifier, 1X12, 15 watt w/reverb, \$250. 423-4217

Six tickets for Carrie Underwood event on July 21, \$75. 351-1420

GE dorm-size refrigerator, \$100; E-Z go golf cart w/trailer and winter cover, \$2,000. 777-8595

A. A. Burguett AC-3AS Classical guitar w/case, \$650; Martin DM guitar w/case, \$550. 882-1904

Screen tent, 12 x 12, \$20; electric trailer brake control for two axles, \$40. 837-6776

Grill, roll-around, Foreman style, integrated Thermos ice chest, Grill2Go/Fire-N-Ice, new in box, \$100. 233-0705

Two side-by-side eye-level crypts, Valhalla Memory Gardens, \$5,200, includes all fees. 890-558-3063

Sofa sleeper, \$60; oak sofa table, \$125; four oak twin bunk beds w/mattresses, \$60 each. 468-3749

Reclining sectional sofa, \$700; two lamps, \$20 each. 256-883-8977

Vehicles

2005 Chevrolet Crewcab Z71, white w/tan leather, loaded, 23K miles, \$28,000. 256-777-4030

2005 Honda 350, 4x4, ATV, red w/less than 300 miles, \$3,900. 656-0043

1998 Chevrolet Cavalier, 4-cylinder, burgundy, cruise, keyless, a/c, all-power, CD/radio, 153K miles, \$1,400. 256-603-3558

2000 Mercury Marquis LS, all-power, 51K miles, silver metallic, leather interior, \$7,975. 931-728-3397

2004 Harley Davidson Road King, 11K miles, pearl white, touring seat, many extras, \$17,400. 776-0811

1992 GMC Vandura 2500 Hi-top conversion van, 95K miles, electric fold down rear seat/bed, \$4,490. 426-4149

2003 Volvo XC70, 35K miles, never damaged, new tires, one-owner, garaged, \$24,000 firm. 256-882-9741

2003 Honda Accord EX coupe, automatic, 4-cylinder, leather, 58K miles, gray, \$16,900. 721-1234/Nancy Self

2004 Plymouth Neon, 4-door, blue, 36.8K miles, appraised \$4,500, sell for \$4,250. 534-0140

2002 Lexus ES300, silver, gray leather interior, sunroof, 6-CD changer, warranty, new tires, \$21,000. 256-430-0220.

2002 Honda TRX300EX Sportrax, adult owned, many accessories, garage kept, \$3,250. 426-2775

1993 Lexus LS400, 7.5K original miles, champagne, leather interior, sunroof, a/c, fully loaded, \$9,600. 837-1470

2002 Chevy Tahoe LS, white, V8, automatic, all-power, 45K miles, \$20,000. 852-6548

1984 SAAB 900 Turbo, runs well, A/C needs minor repair, 189K miles, 5-speed. 256-527-8798

1985 Oldsmobile Cutlass Supreme w/T-tops, 442 rims, new tires, 5K miles on rebuilt engine & transmission. 755-6181

1996 Cadillac DeVille, loaded, leather, hunter green, \$3,750; 1995 Cadillac DeVille, rims, loaded, black, \$2,700. 256-520-2802

1999 GMC Suburban, automatic, 87k miles, white w/leather, 3rd seat, running boards, luggage rack, \$12,425. 256-881-0760

Wanted

Set of twin beds. 532-0644 after 6 p.m. weeknights, anytime weekends

Deep aluminum flat-bottom boat and trailer w/20-35HP motor. 931-571-3703

Free

To good home, Chocolate Lab currently in foster care, 4 yrs. old. 233-5620

To good home, 5 yr. old neutered Chihuahua, housebroken, fawn color, leash trained. 256-464-9034

Good home needed for female mixed-breed dog, spayed, good natured, good w/cats. 828-5654

Scott

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Program. Four years later, I became a civil servant, working on space station payload training program design. I served as a crew communicator for the ATLAS-1 Spacelab mission, which ran a plethora of experiments from the United States and Europe. I championed low-bandwidth uplink TV and multi-channel TV to/from shuttle until the International Space Station came along. I've been a PAYCOM since Expedition 3 in 2001 and it's been a tremendous adventure.

How many years have you been at the Marshall Center?

I have been working at Marshall for 21 years.

What services does your job provide in support of the center's mission?

The PAYCOM function falls under Marshall's payload management responsibility. The crew does work that cannot be remotely controlled from the ground, and PAYCOM helps guide them through it. It's very much the action part of payload activities.

What are you looking to accomplish in your role this year?

Returning to three-person operations on board the space station is going to be a lot of fun, and integrating our friends and colleagues from Europe and Japan is imminent. I've developed both an academic and applied interest in the psychology of long-term spaceflight with respect to both flight crew and ground operations. I'd really like to take some graduate level courses in this area and bring it to bear on Marshall's support to payload operations.

What is the biggest challenge you may face?

I'm very passionate about what I do, but one must be careful to not get so wrapped up in work that you shortchange other things. There are times when I legitimately should and do stay and work late, or drop everything else to go to work. But if I don't take time to "have a life" with my wife, kids and myself, it cheats all of us, even degrading the balance that can make me effective when I'm at work. In a nutshell, I need to channel the passion, and occasionally let it breathe fresh air - slowly.

On a personal side, how do you spend your leisure time?

Sleep is good! All kidding aside, I swim for exercise and hope to take up rowing again soon. My 80-acre farm has a two-acre pond, which makes for a very pleasant way to go in circles and yet accomplish something. My wife trains horses in addition to being an equine and wildlife artist, and we ride together now and then and have a great deal of fun watching movies.

We've both performed in community theater. I particularly love doing musicals and have had the good fortune of playing Ben Franklin in "1776" and Reb Mordcha in "Fiddler on the Roof." This July I'll play Professor Nebulon in the premier staged reading of "Semi-Final Frontier." I have a 20-year-old daughter who just married and a 10-year old son who is an avid baseball player. My farm provides ample mechanical, electrical, carpentry and plumbing work — good counterbalance for high-tech in Huntsville — and the Somerville community provides opportunities for volunteer firefighting.

Jessica Wallace, the Marshall Star editor, contributed to this article.

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